

Amendments to the Claims:

A clean version of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR § 1.121(c)(3). This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A medical imaging system comprising:
acquisition means ~~2-intended to acquire for acquiring~~ a volume of ~~3D three-~~
dimensional (3D) digital data ~~3DV~~ comprising at least one object of interest ~~1;~~
means ~~[[4]]~~ for segmenting a region of interest comprising said object of interest ~~[[1]]~~
within said volume ~~3DV~~, of 3D data into a segmented region of interest;
means ~~[[3]]~~ for displaying a ~~2D two-dimensional (2D)~~ representation ~~2DR~~ of said
volume ~~3DV~~ of ~~3D data~~ and said segmented region of interest ~~RS;~~
means ~~[[5]]~~ for ~~calculating determining~~ a sub-regions map ~~CSR₁-CSR~~ within said
segmented region of interest ~~[[.]]~~; and
correction means ~~6-intended to exclude sub-regions from for correcting the segmented~~
said region of interest by means of using said sub-regions map ~~CSR₁-CSR~~.

2. (Currently amended) ~~A~~ The medical imaging system as claimed in Claim 1,
~~characterized in that wherein~~ said means ~~[[5]]~~ for ~~calculating a determining the~~ sub-regions
map comprise ~~sub-means 11 means~~ for calculating watersheds ~~intended to form a first sub-~~
regions map ~~CSR₁~~ within the segmented region of interest RS.

3. (Currently amended) ~~A~~ The medical imaging system as claimed in Claim 2,
~~characterized in that wherein~~ said means ~~[[5]]~~ for ~~calculating a determining the~~ sub-regions
map ~~further~~ comprise ~~sub-means 10 means~~ for calculating a map of distances ~~CD~~, said ~~sub-~~
~~means 11 means~~ for calculating watersheds ~~being intended to form forming~~ the first sub-
regions map ~~CSR₁~~ ~~from based on~~ said map of distances ~~CD~~.

4. (Currently amended) A The medical imaging system as claimed in Claim 2, ~~characterized in that wherein~~ said means for ~~calculating a determining the~~ sub-regions map [[5]] further comprise ~~merging sub-means 12 intended to merge~~ means for merging sub-regions of the first map ~~CSR_i, in order~~ to form a second sub-regions map CSR_i.

5. (Currently amended) A The medical imaging system as claimed in Claim 1, further comprising:
~~characterized in that it comprises~~ control means [[7]] for enabling a user to select the sub-regions to be excluded.

6. (Currently amended) A The medical imaging system as claimed in Claim 1, ~~characterized in that wherein~~ said system is able to update said means for displaying the 2D representation display updates which in order to take into account the effects of corrected segmented region of interest provided by the correction means.

7. (Currently amended) A The medical imaging system as claimed in Claim 1, further comprising:
labeling means [[8]] for labeling the sub-regions map ~~CSR_i, CSR~~ of the segmented region of interest RS.

8. (Currently amended) A device for correcting a segmented region RS, intended configured to be integrated in a medical imaging system ~~intended to acquire~~ which acquires a volume of data and to segment a region of interest around an object of interest [[1]] within said volume of data, said device comprising:

means [[5]] for calculating a sub-regions map ~~CSR_i, CSR~~ within the segmented region RS_i; and

~~collection~~ correction means ~~6 intended to exclude~~ for excluding sub-regions of said region of interest RS by means of based on said sub-regions map.

9. (Currently amended) ~~A~~ The medical imaging apparatus as claimed in Claim 1,
further comprising:

a medical imager comprising means ~~22~~ for forming ~~[[a]]~~ the volume of 3D digital data
representing an environment including ~~an~~ the object of interest ~~4,~~ a medical imaging system
~~20~~ as claimed in Claim 1.

10. (Currently amended) A method of correcting a segmented region of interest
derived from a volume of three-dimensional (3D) digital data comprising at least one object
of interest, the method comprising:

~~a step of~~ calculating a regions map CSR_4, CSR within the segmented region RS_7 ; and
~~a correction step intended to exclude~~ excluding sub-regions of the segmented region
 RS ~~by means of~~ based on the sub-regions map CSR_4, CSR .

11. (Canceled)